Figure B.1. Georges Bank, Mid-Atlantic Bight Scallop Biomass, Landings, and Survey Indices

Georges Bank Sea Scallop Biomass Density NMFS Annual Sea Scallop Survey

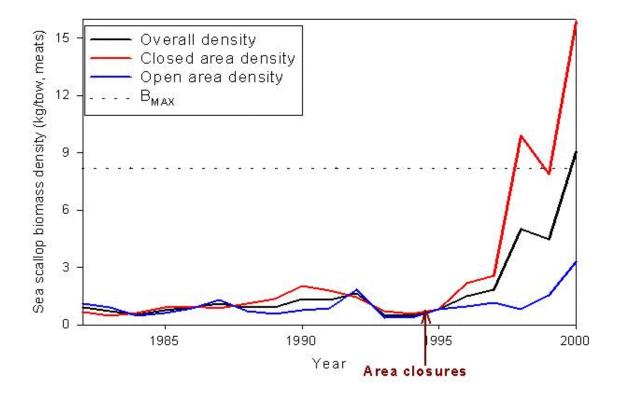


Figure B.2. Georges Bank, Mid-Atlantic Bight Scallop Biomass, Landings, and Survey Indices

Mid-Atlantic Bight Sea Scallop Biomass Density NMFS Annual Sea Scallop Survey

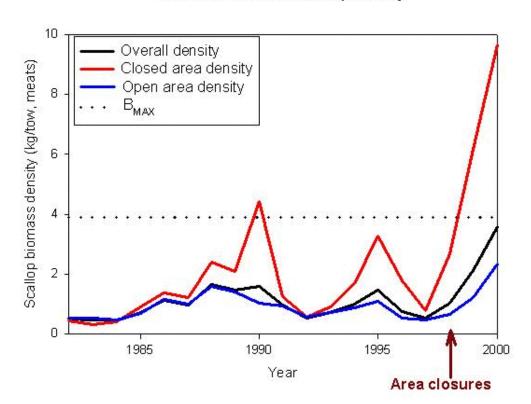


Figure B.3. Georges Bank, Mid-Atlantic Bight Scallop Biomass, Landings, and Survey Indices

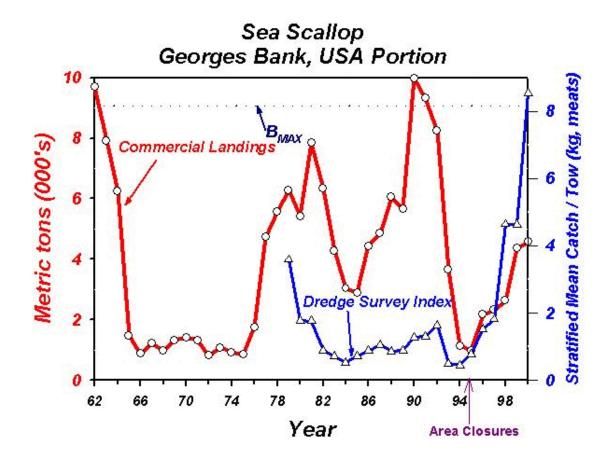


Figure B.4. Georges Bank, Mid-Atlantic Bight Scallop Biomass, Landings, and Survey Indices

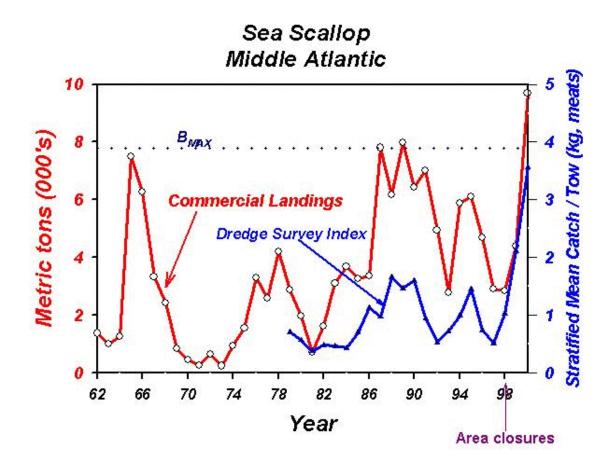


Figure B.5. Sculpin abundance from fall bottom trawl survey

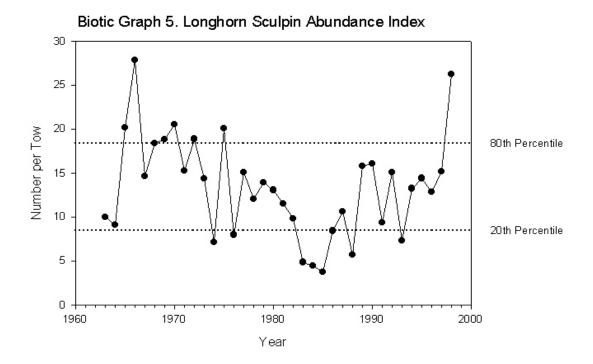


Figure B.6. Blue crab abundance

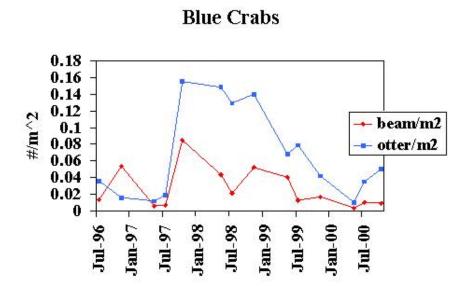
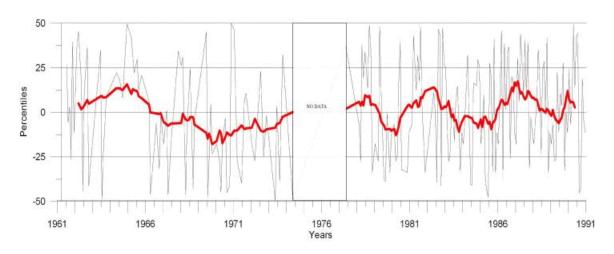


Figure B.7a. Central Gulf of Maine Calanus finmarchicus, c.1-4, c.5-6 anomalies



Percentile departures of Calanus spp., c.1-4 from 1961 through 1990 medians in the central Gulf of Maine. Fifteen month running average curve superimposed. From:MARMAP Ships of Opportunity Program.

Figure B.7b. Central Gulf of Maine Calanus finmarchicus, c.1-4, c.5-6 anomalies

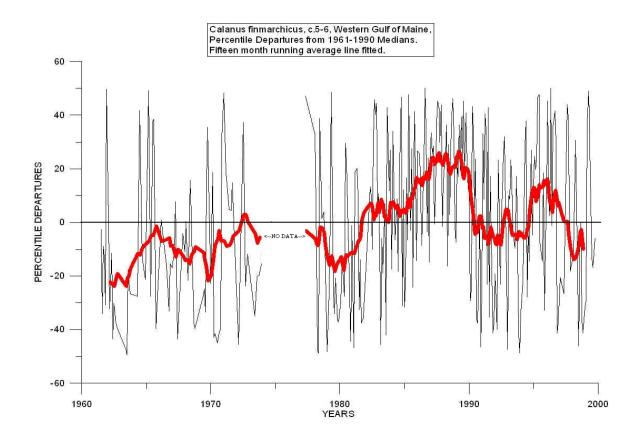
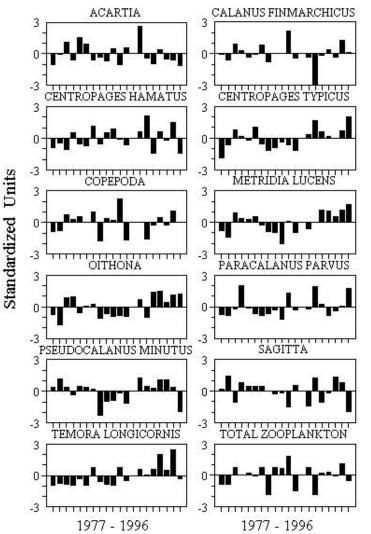


Figure B.8. Anomalies of major zooplankton during spring



Standardized departures of mean annual plankton abundances during 'spring' (15 Feb - 15 May) on Georges Bank. From: NOAA, NEFSC, MARMAP Surveys.

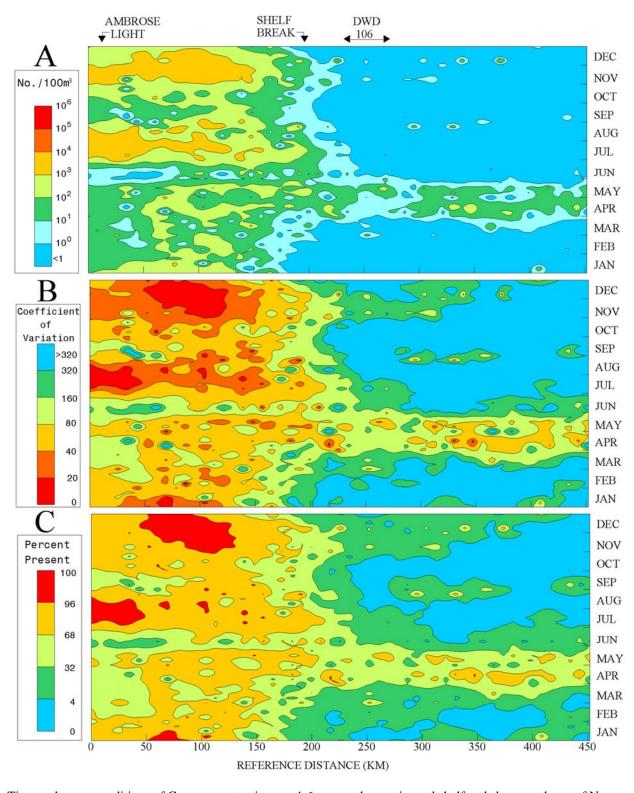
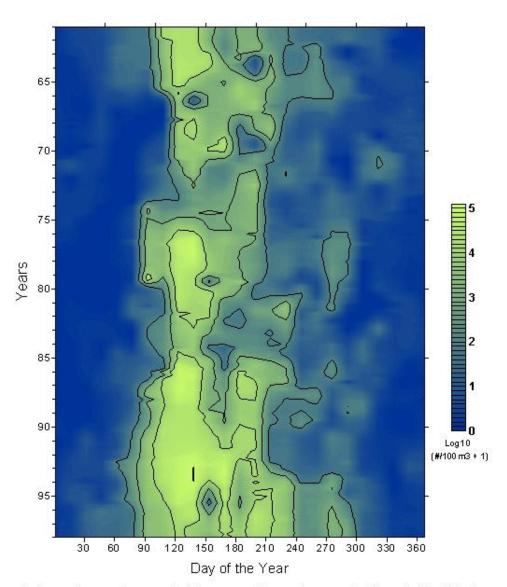


Figure B.9. Time and space conditions of Centropagus typicus across the continental shelf

Time and space conditions of Centropages typicus, c. 4-6, across the continental shelf and slope southeast of New York City during the 1976 through 1990 base period. A. Base period mean abundance. B. Coefficient of variation about the base period mean. C. Percent of samples during the base period with taxon present. From: Jossi et al., In Review.

Figure B.10. Calanus abundance by day of year over time



Calanus finmarchicus, c1-4, between Massachusetts & Cape Sable (10m). From: MARMAP Ships of Opportunity Program.

Figure B.11. The overall zooplankton biomass and abundance trends of two dominant copepods: Calanus finmarchicus and Centropages typicus

Georges Banks

% Departures (std units) from time series monthly mean. Trend line is forth order polynomial fit to data.

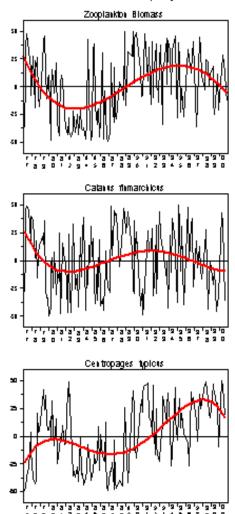


Figure B.12. The overall zooplankton biomass and abundance trends of two dominant copepods: Calanus finmarchicus and Centropages typicus

Gulf of Maine

% Departures (std units) from time series monthly mean. Trend line is forth order polynomial fit to data.

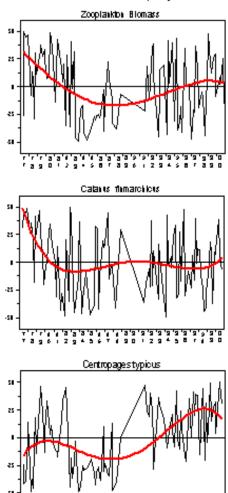


Figure B.13. *Total Zooplankton Biomass*

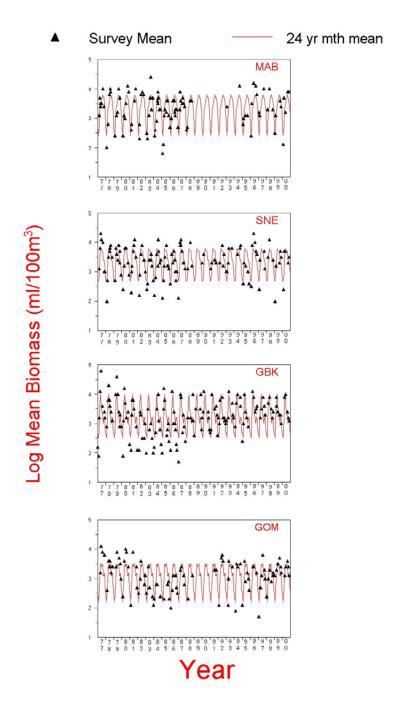


Figure B.14a. Relative abundance of northeast species groups (groundfish, pelagics, elasmobranchs, others) from combined fall and spring bottom trawl surveys

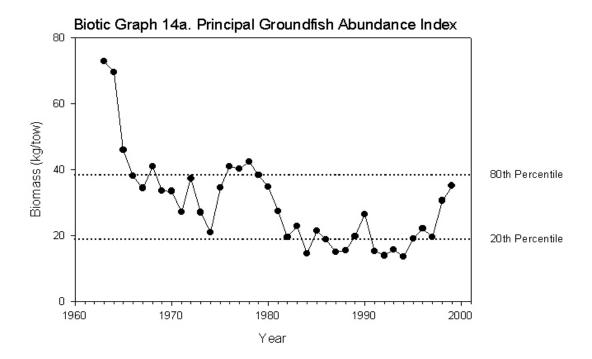


Figure B.14b. Relative abundance of northeast species groups (groundfish, pelagics, elasmobranchs, others) from combined fall and spring bottom trawl surveys

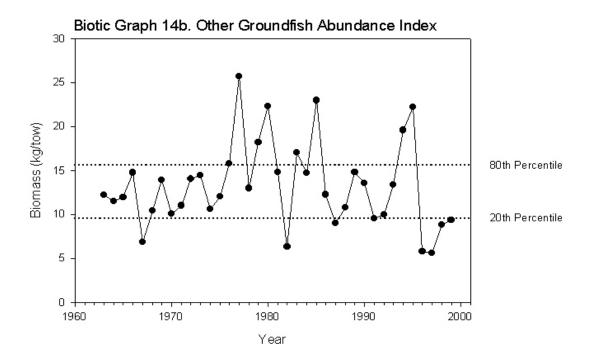


Figure B14c. Relative abundance of northeast species groups (groundfish, pelagics, elasmobranchs, others) from combined fall and spring bottom trawl surveys

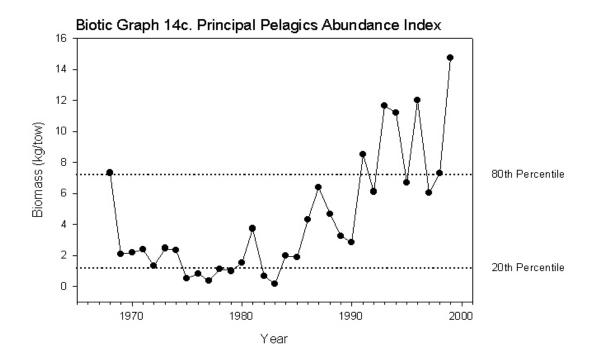


Figure B.14d. Relative abundance of northeast species groups (groundfish, pelagics, elasmobranchs, others) from combined fall and spring bottom trawl surveys

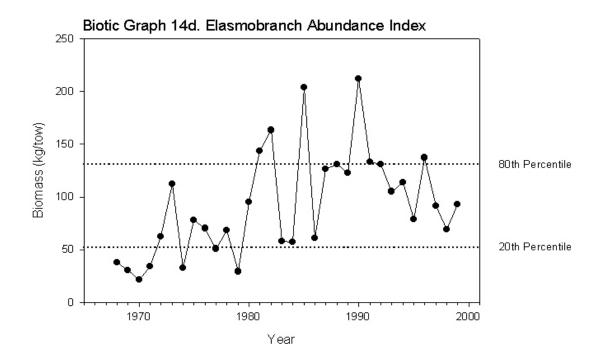


Figure B.15. *Principal groundfish biomass for Georges Bank from autumn bottom trawl survey*

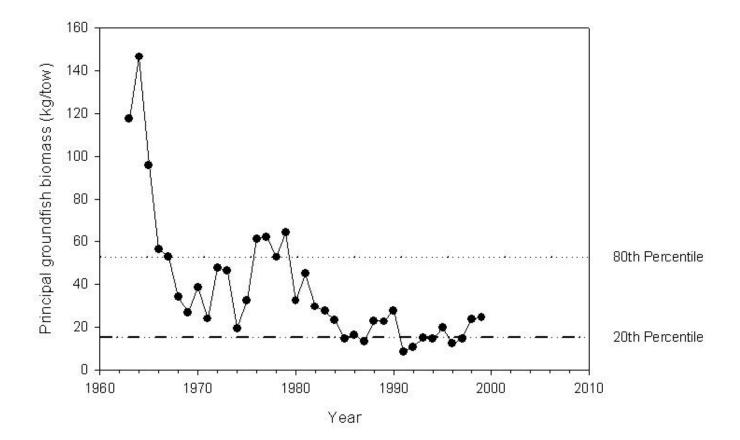


Figure B.16. Elasmobranch biomass for Georges Bank from autumn bottom trawl survey

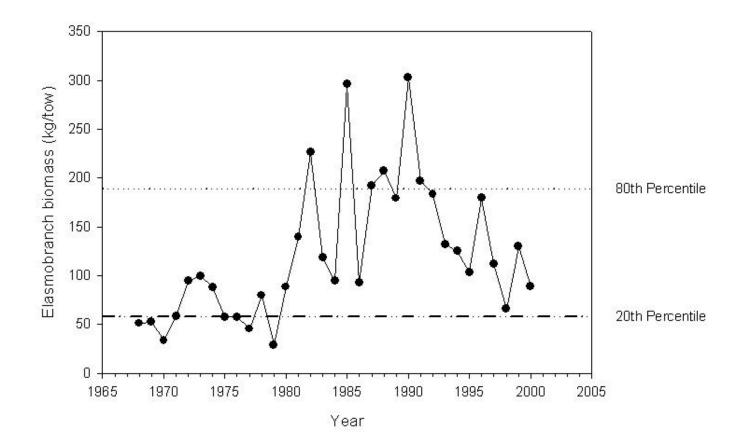


Figure B.17. Principal pelagics biomass estimates from recent assessments

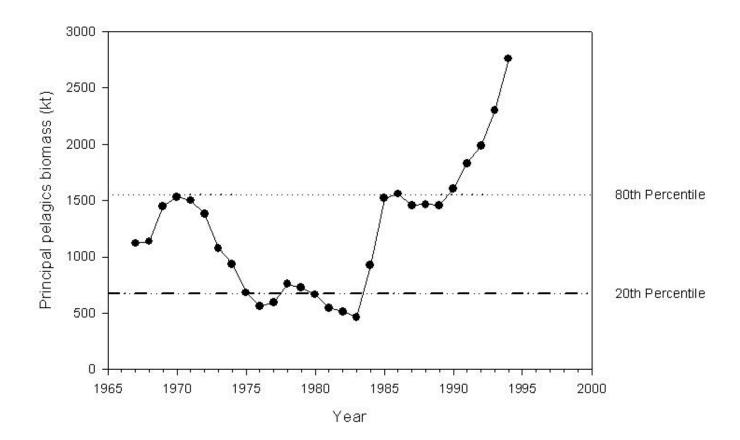


Figure B.18. Cephalapod biomass for Georges Bank from fall bottom trawl survey

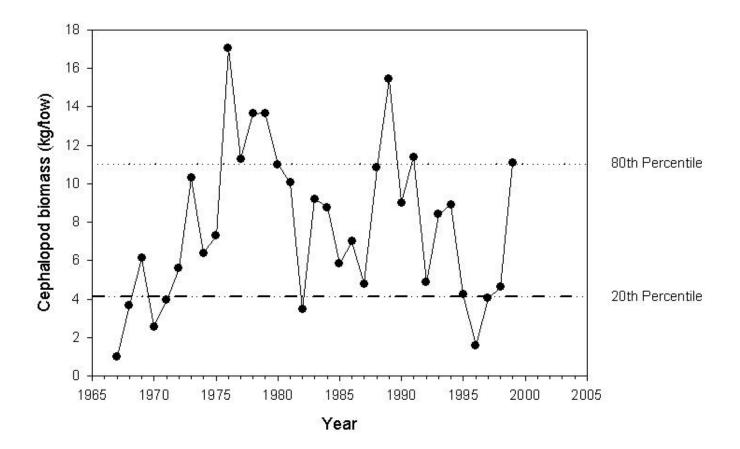


Figure B.19. Frequency of occurrence of parasitic nematodes in all predators

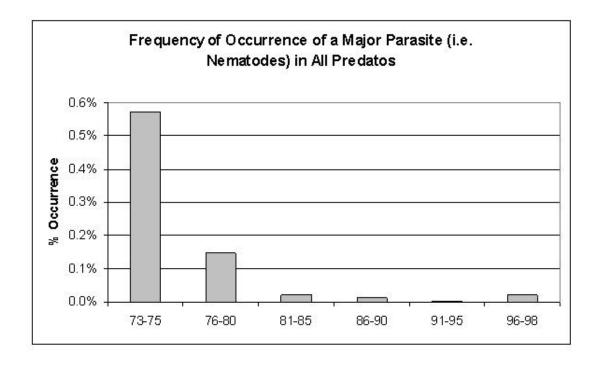


Figure B.20. Winter flounder collected by beam and otter trawls

Winter flounder

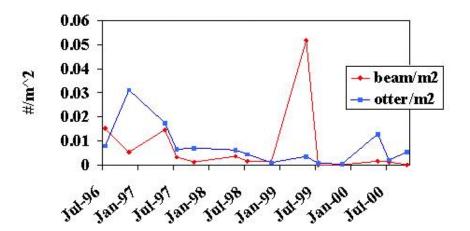
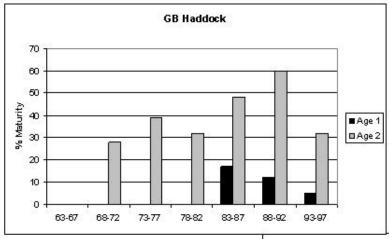


Figure B.21. *Haddock and cod % maturity for ages 1 and 2*



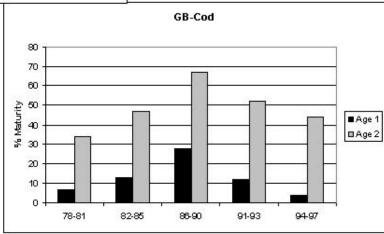


Figure B.22. *Cod survival ratio anomaly*

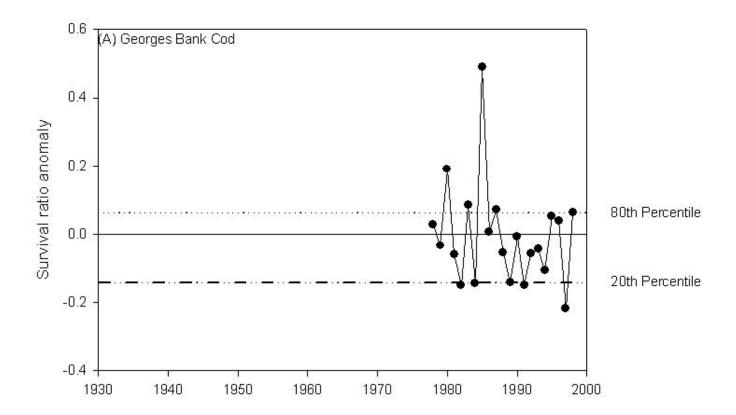


Figure B.23. *Haddock survival ratio anomaly*

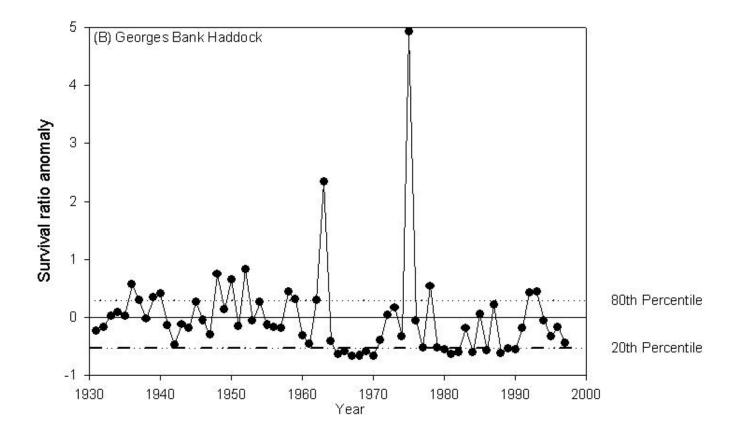


Figure B.24. Yellowtail flounder survival ratio anomaly

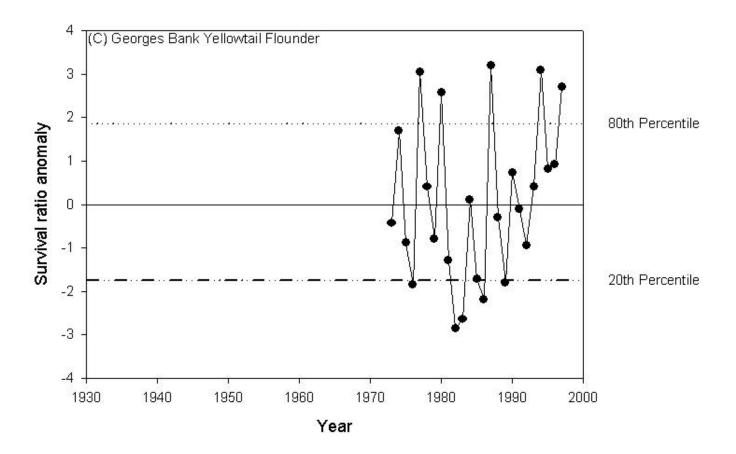


Figure B.25a. Total biomass for all from both fall and spring bottom trawl surveys

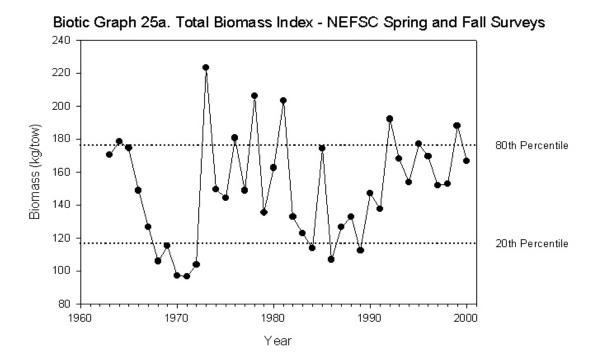


Figure B.25b. Total biomass from both fall and spring bottom trawl surveys

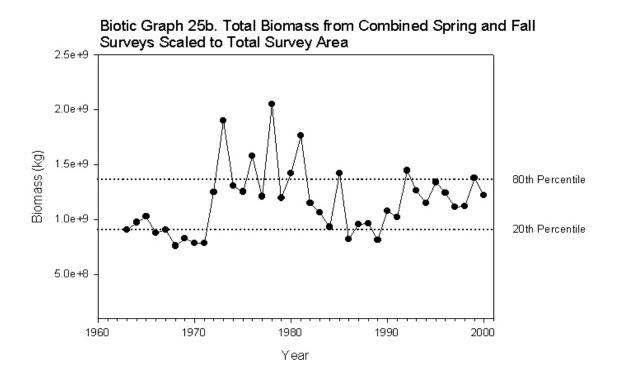


Figure B.26. Mean length of all species collected in fall and spring bottom trawl

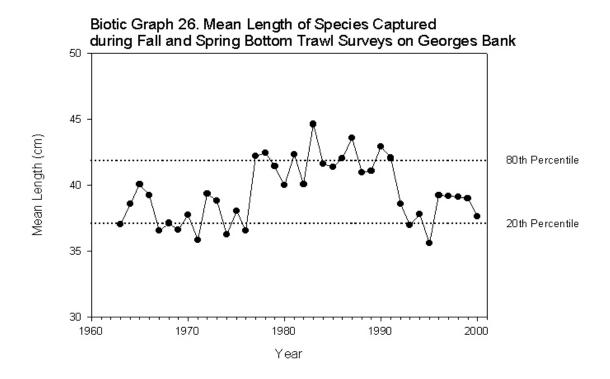


Figure B.27a. Abundance of various guilds in fall and spring bottom trawl surveys

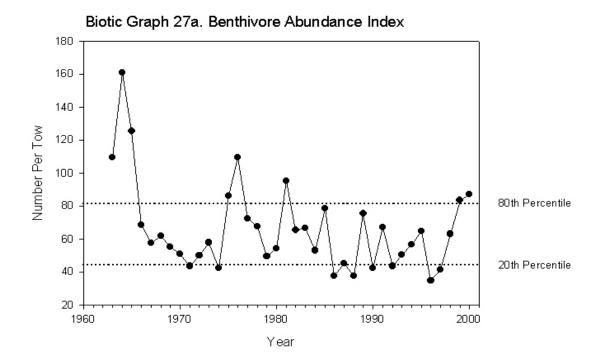


Figure B.27b. Abundance of various guilds in fall and spring bottom trawl surveys

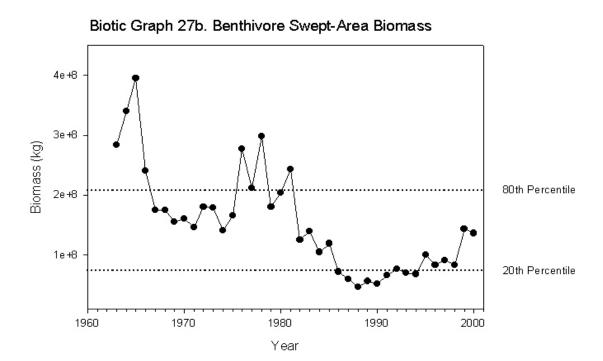


Figure B.27c. Abundance of various guilds in fall and spring bottom trawl surveys

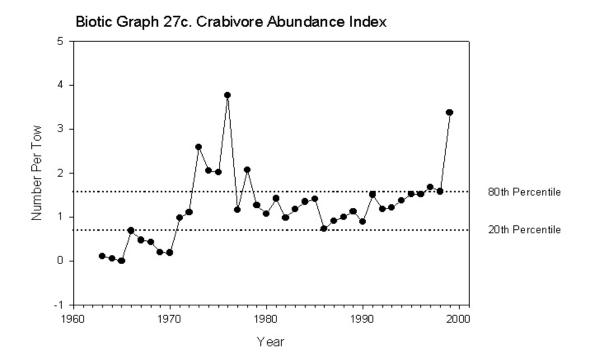


Figure B.27d. Abundance of various guilds in fall and spring bottom trawl surveys

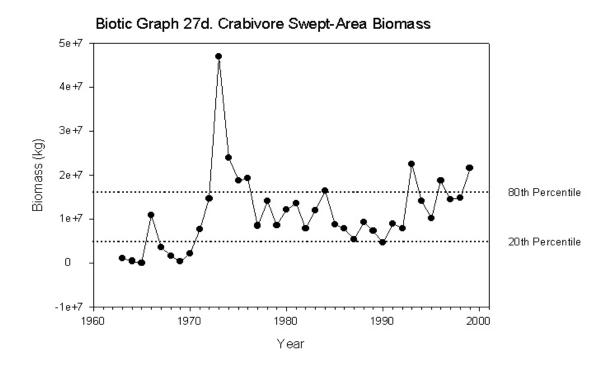


Figure B.27e. Abundance of various guilds in fall and spring bottom trawl surveys

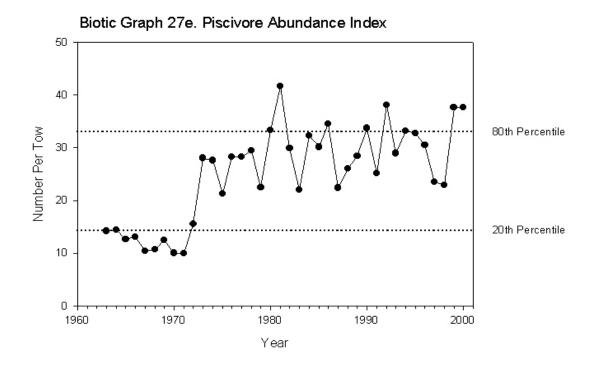


Figure B.27f. Abundance of various guilds in fall and spring bottom trawl surveys

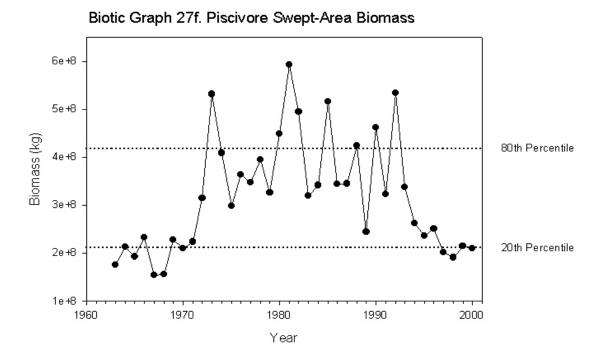


Figure B.27g. Abundance of various guilds in fall and spring bottom trawl surveys

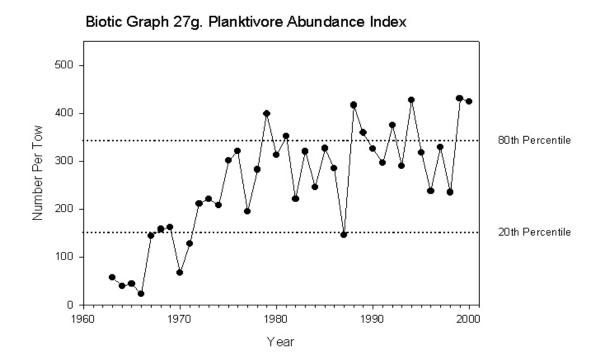


Figure B.27h. Abundance of various guilds in fall and spring bottom trawl surveys

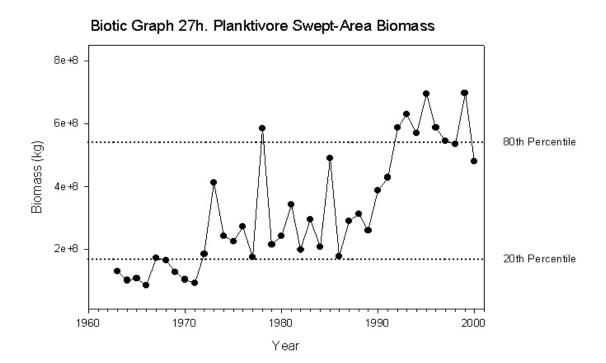
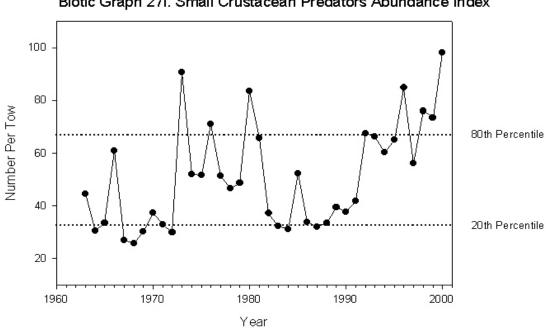


Figure B.27i. Abundance of various guilds in fall and spring bottom trawl surveys



Biotic Graph 27i. Small Crustacean Predators Abundance Index

Figure B.27j. Abundance of various guilds in fall and spring bottom trawl surveys

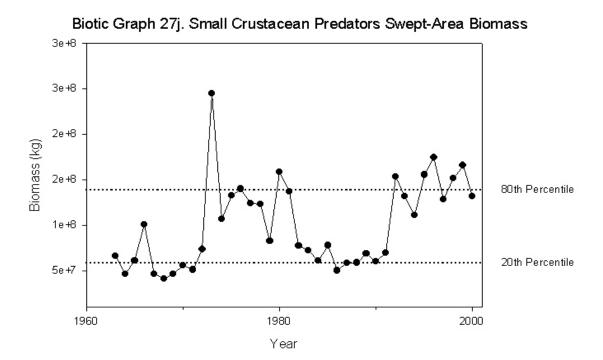


Figure B.27k. Abundance of various guilds in fall and spring bottom trawl surveys

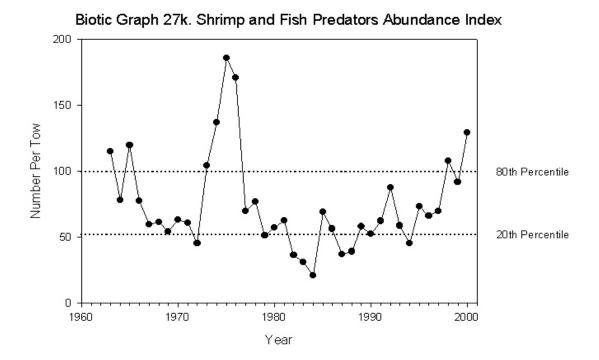


Figure B.27l. Abundance of various guilds in fall and spring bottom trawl surveys

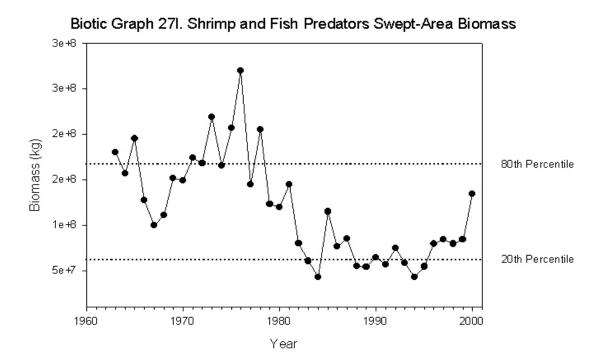


Figure B.28. Gulf of Maine total species diversity from bottom trawl survey

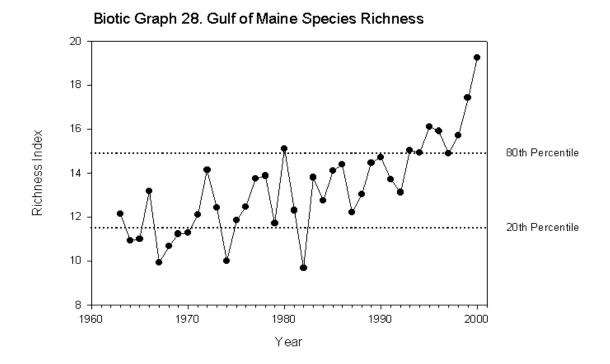


Figure B.29. Gulf of Maine abundant species diversity from bottom trawl survey

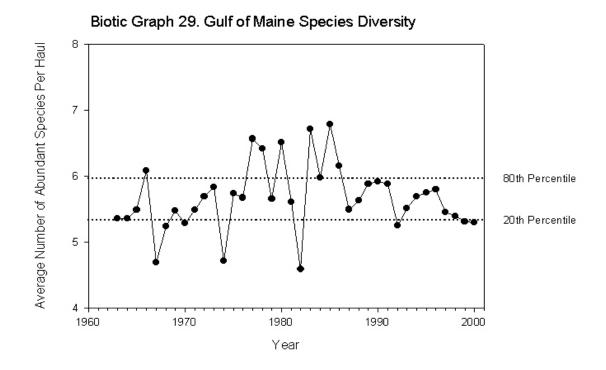


Figure B.30. Gulf of Maine species evenness from bottom trawl survey

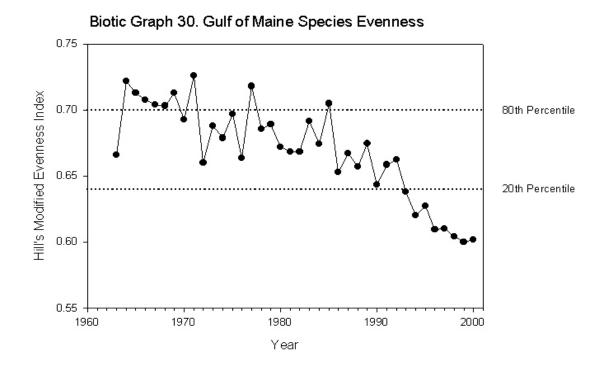


Figure B.31. Georges Bank total species diversity from bottom trawl survey

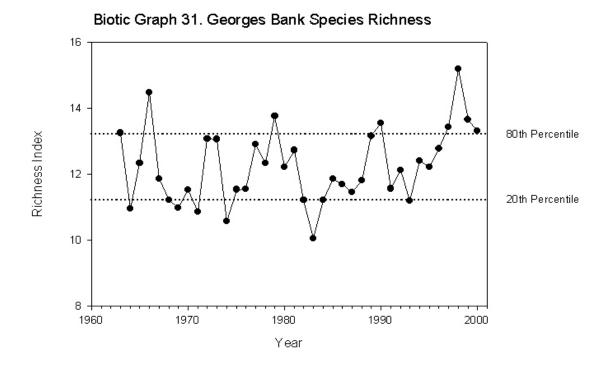


Figure B.32. Georges Bank abundant species diversity from bottom trawl surveys

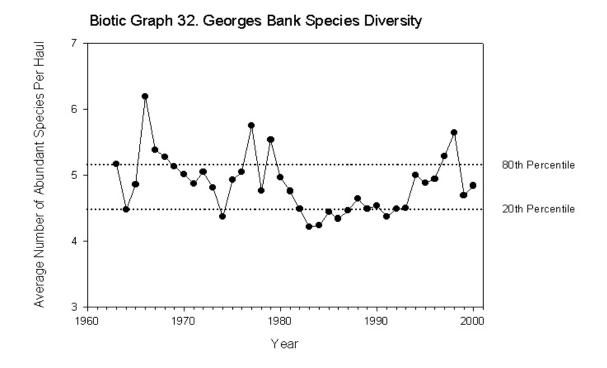


Figure B.33. Georges Bank species evenness from bottom trawl surveys

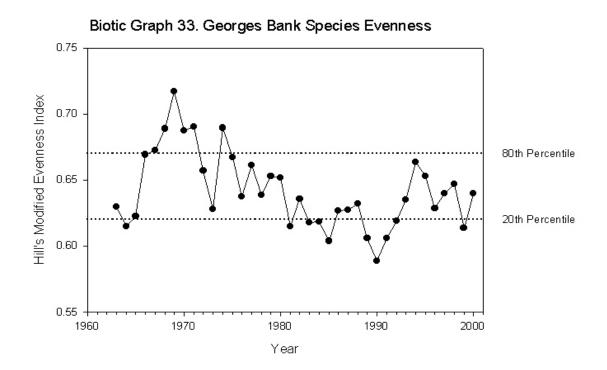
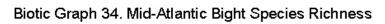


Figure B.34. *Mid-Atlantic Bight total species diversity from bottom trawl surveys*



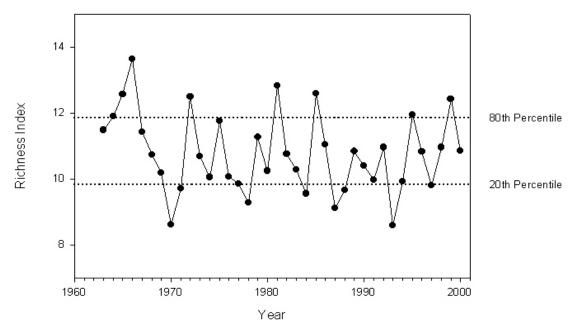


Figure B.35. Mid-Atlantic Bight Abundant species diversity from bottom trawl surveys

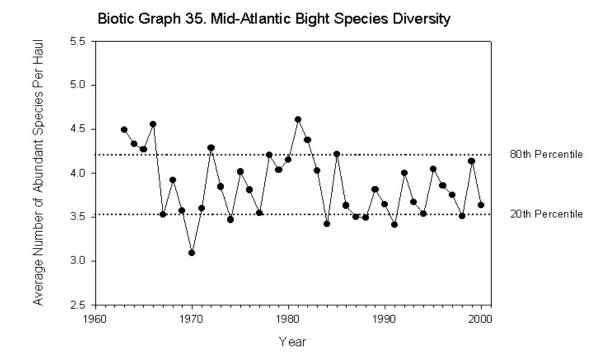


Figure B.36. Mid-Atlantic Bight Species evenness from bottom trawl survey

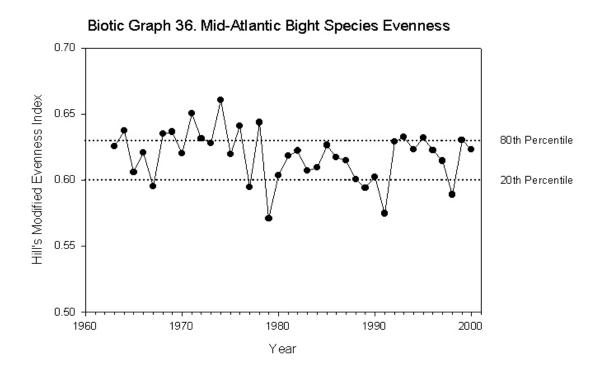


Figure B.37. Silver hake linkage density

Biotic Graph 37. Number of Silver Hake Predator and Prey Species

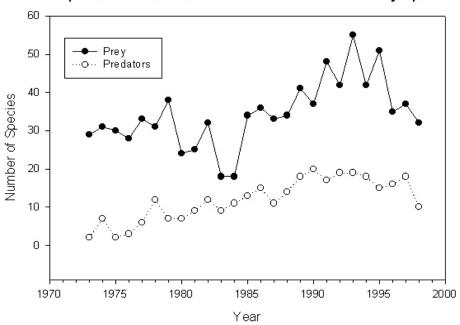


Figure B.38. *Total consumption by 12 piscivores*

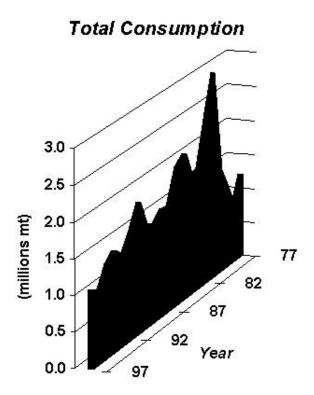


Figure B.39. Total fish consumption by six piscivores on Georges Bank

Six piscivores, GB

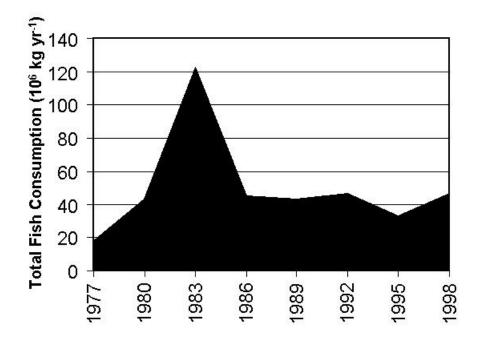


Figure B.40a. Consumption of prey species by 12 piscivores

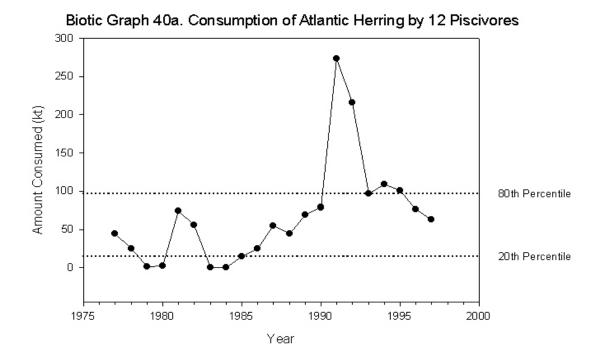


Figure B.40b. Consumption of prey species by 12 piscivores

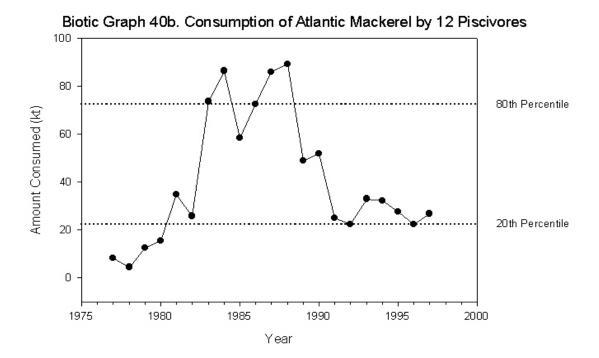


Figure B.40c. Consumption of prey species by 12 piscivores

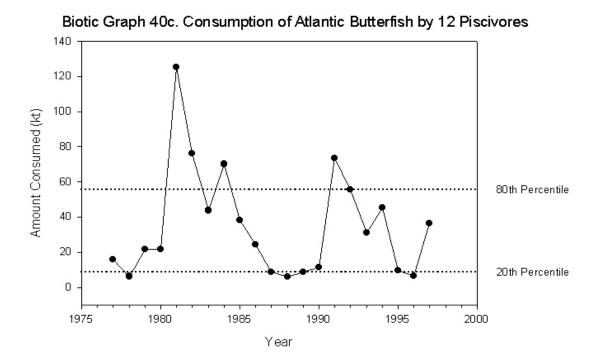


Figure B.40d. Consumption of prey species by 12 piscivores

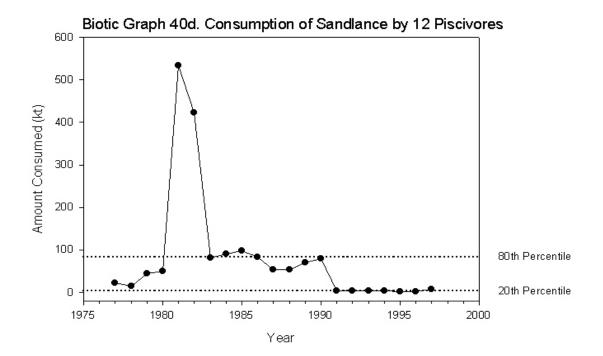


Figure B.40e. Consumption of prey species by 12 piscivores

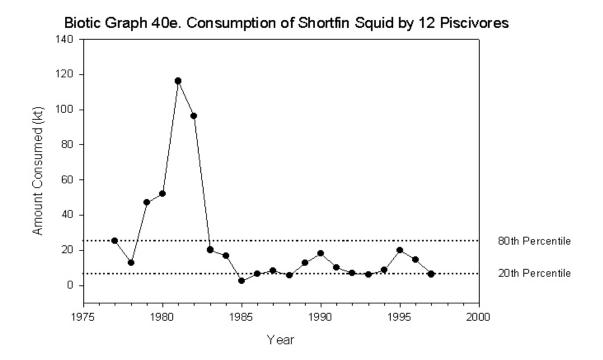


Figure B.40f. Consumption of prey species by 12 piscivores

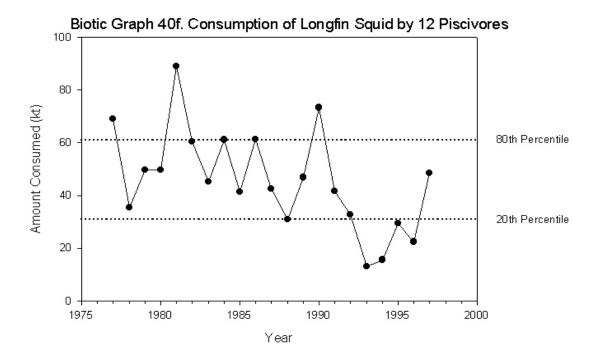


Figure B.41. Snapshot of food web for three years in three different decades

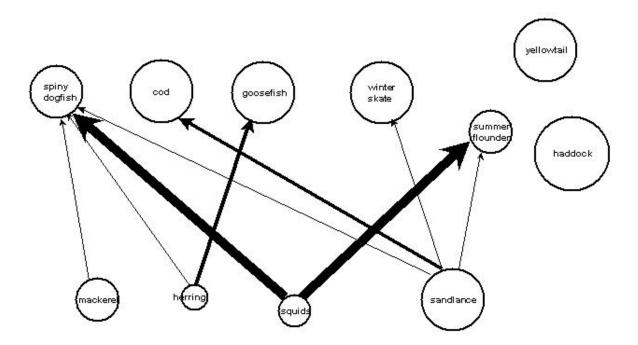


Figure B.42. Snapshot of food web for three years in three different decades

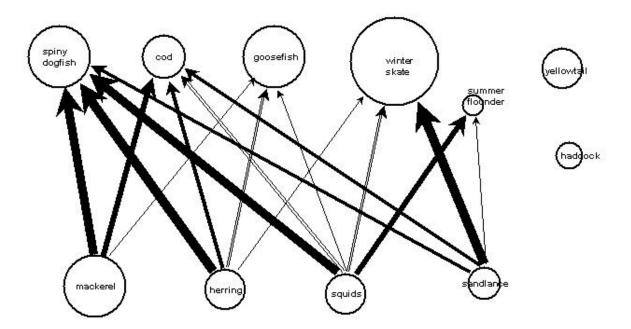


Figure B.43. Snapshot of food web for three years in three different decades

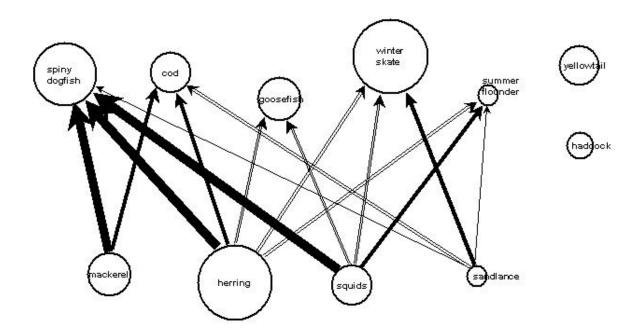


Figure B.44. Fish consumption and % fish in diet of cod

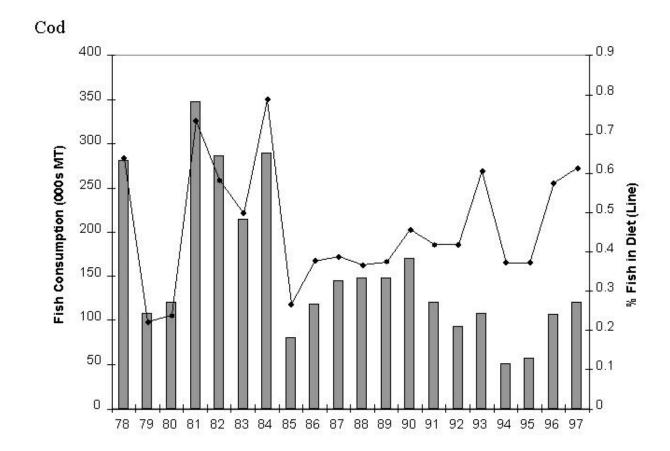


Figure B.45. Fish consumption by cod at age

Cod

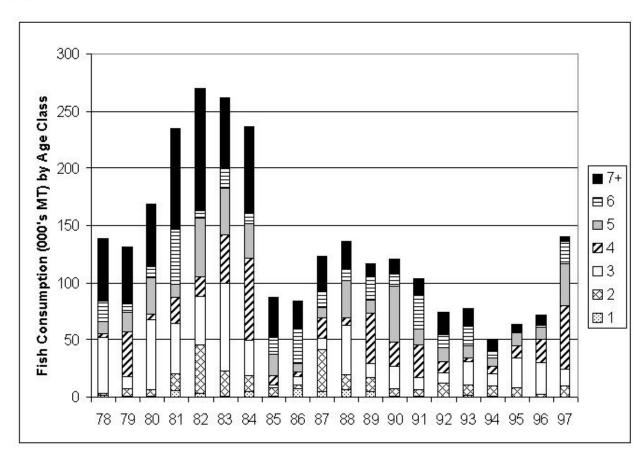


Figure B.46. Cod % diet composition of major fish prey

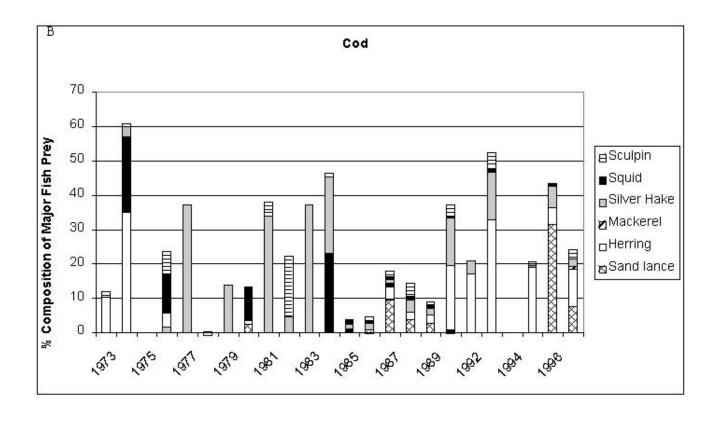


Figure B.47. Spiny dogfish % diet composition of major fish prey

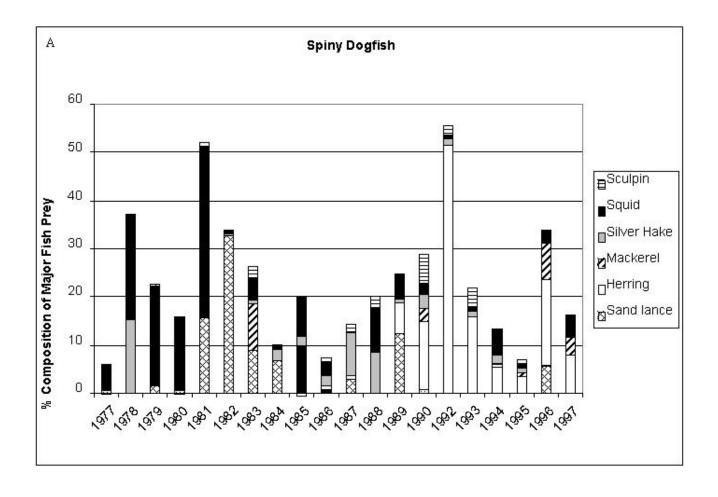


Figure B.48a. Number of predators for sand lance, herring, hermit crab, ophiuroids, mysids, and red hake

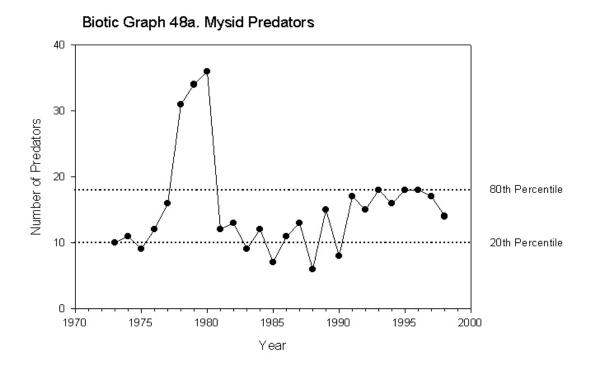


Figure B.48b. Number of predators for sand lance, herring, hermit crab, ophiuroids, mysids, and red hake

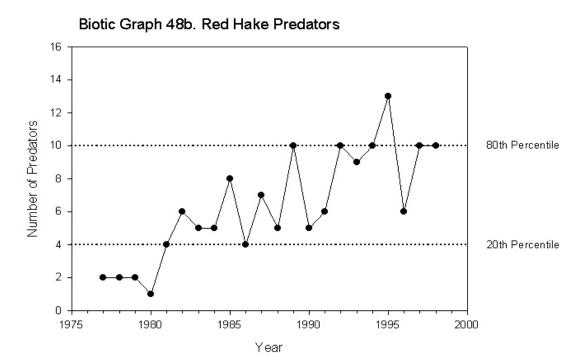


Figure B.48c. Number of predators for sand lance, herring, hermit crab, ophiuroids, mysids, and red hake

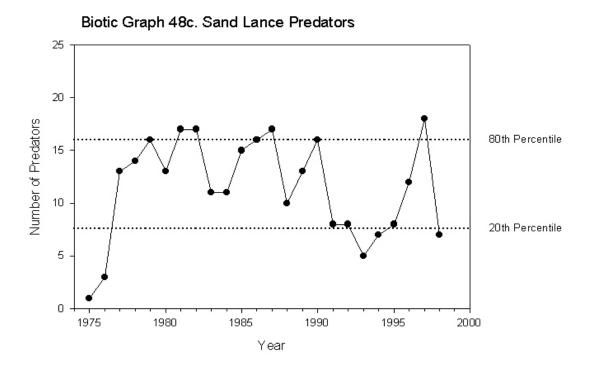


Figure B.48d. Number of predators for sand lance, herring, hermit crab, ophiuroids, mysids, and red hake

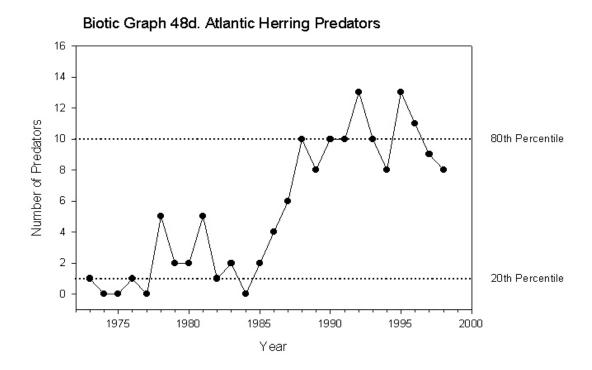


Figure B.48e. Number of predators for sand lance, herring, hermit crab, ophiuroids, mysids, and red hake

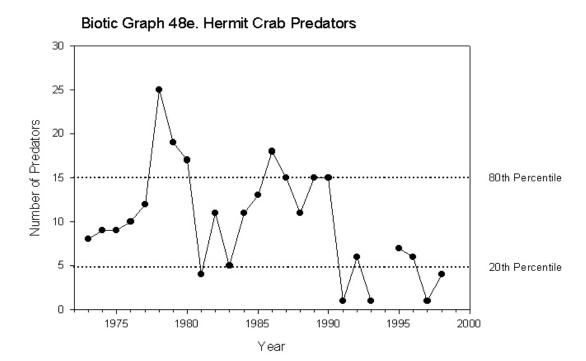


Figure B.48f. Number of predators for sand lance, herring, hermit crab, ophiuroids, mysids, and red hake

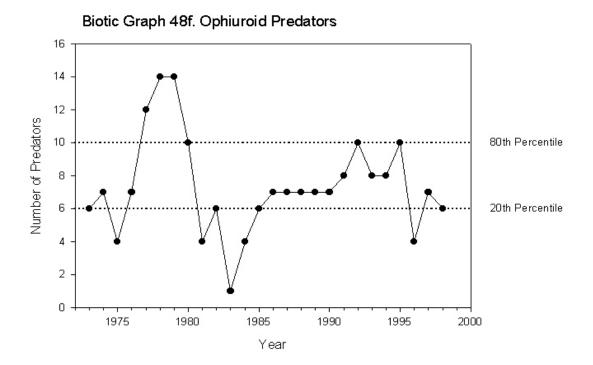


Figure B.49. Silver hake % cannibalism

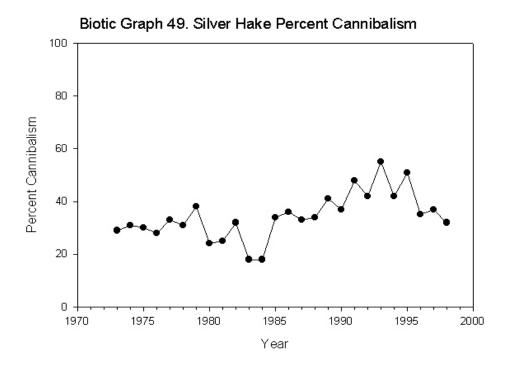


Figure B.50. Silver hake and red hake number of prey items

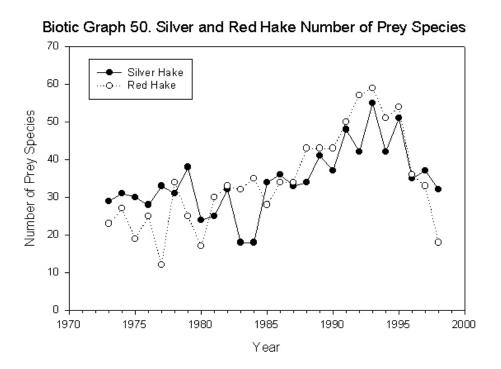


Figure B.51. *Herring consumption to landings ratio*

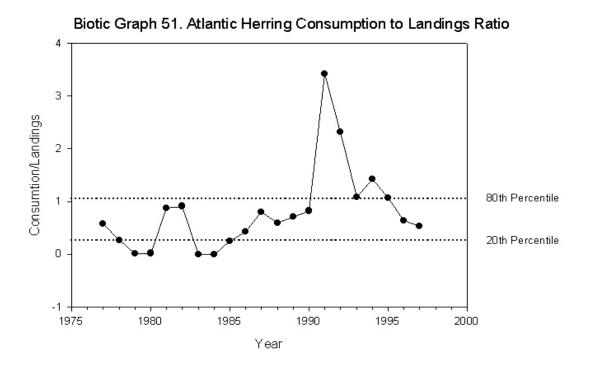


Figure B.52. Mackerel consumption to landings ratio

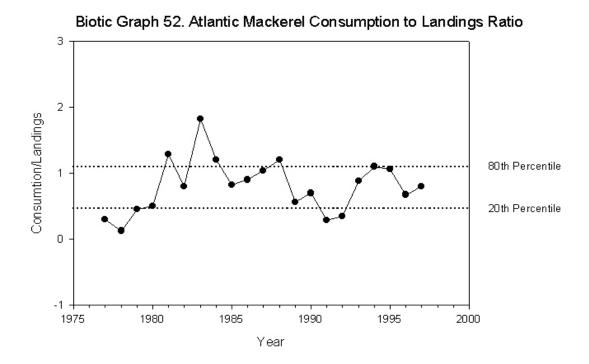


Figure B.53. Loligo consumption to landings ratio

